INDEX TO SURGICAL PROGRESS.

HEAD AND NECK.

I. Operative Treatment of Spasmodic Torticollis. By M. H. Richardson and G. L. Walton (Boston). The authors endorse the dicta of Noble Smith, that neither drugs, local applications, nor other general methods are of any permanent use in the treatment of well-established spasmodic wry-neck; and that electricity has failed to do any permanent good except in some recent cases which probably differed entirely in their nature from those referred to.

Nerve-stretching offers, also, too little hope to warrant its employment. Neurotomy is unattended with permanent benefit. The operation which alone offers hope of lasting benefit is the excision of a considerable portion of the nerve or nerves supplying the affected muscle. Neurectomy upon the spinal accessory nerve has been often done, and its status as an operative procedure has been established. Operation on the posterior cervical branches has been less frequently performed, but knowledge as to its methods and results is accumulating. It has been performed times enough to prove that, notwithstanding the extensive paralysis which it produces, the ability to maintain the upright posture of the head is not lost.

The experience of the writers is that the posterior rotators are generally affected on the opposite side, tending to assist rather than to counteract the action of the sterno-cleido-mastoid as regards rotation. They divide the muscles of the posterior group roughly into those which draw the head back, those which rotate, and those (the larger number) which do both. Following the classification of Ballance, in the second group are placed the inferior oblique and rectus capitis posticus major. These are supplied by the suboccipital nerve. Those which extend—namely, the rectus capitis minor, superior oblique, and complexus—are supplied by the same nerve. The larger muscles which when both sides are acting extend, and when one side is acting rotate, include the splenius, trachelo-mastoid, and complexus. The splenius, trachelo-mastoid, and the complexus are supplied by the succeeding posterior primary divisions of the cervical nerves. All the rotators here considered turn the face towards the affected side, as opposed to the muscles supplied by the spinal accessory, which turn the face away from it.

The posterior muscles appear to be more powerful than the anterior group. In most cases resection of the spinal accessory should be first resorted to, partly in the hope that the whole trouble will thereby be relieved, and partly to enable a more exact study to be made of the muscles involved, after paralysis of the trapezius.

The best incision for exposing the spinal accessory nerve is along the anterior border of the sterno-cleido-mastoid muscle, where the nerve, passing obliquely downward and backward from the jugular foramen, is crossed by the fibres of the muscle. This point will be found about an inch and a half below the mastoid process. The centre of the incision, which need not be over an inch and a half in length, should be, therefore, an inch and a half from the tip of the mastoid process. After crossing the internal jugular vein the nerve lies upon the precervical muscles and fascia. It is usually found with ease by careful dissection just above and internal to the point where it passes behind the muscle.

This nerve varies considerably in size and strength. It sometimes fails to follow the usual course. In one instance, in a dissecting-room subject, the spinal accessory came from the anterior divisions of the second and third cervical nerves; it was impossible to demonstrate the position of the nerve in this subject without extensive dissection of the deep parts. Had this very unusual variation existed in the cases operated upon, the search would have been unsuccessful.

As soon as the dissection, carried directly backward towards the prevertebral space, exposes the fascia covering the rectus capitis anticus major, the nerve usually is seen, especially if the dissection has been bloodless. A dry and bloodless field seems a sufficient advantage to justify great care in controlling hæmorrhage as the operation proceeds, for with everything stained with blood it may be extremely difficult to find this nerve even within the narrow limits of its normal position.

Finding the exact position of the nerve may be facilitated by irritating it with the nail of the index finger,—drawing the nail firmly across the bottom of the dissection at right angles with the nerve, and at the same time pressing firmly backward against the cervical bodies. In this manner the filaments are irritated enough to cause a sharp contraction of the sterno-mastoid and trapezius muscles.

The nerve having been distinctly isolated, it should be drawn out of the wound as far as possible and cut. Both extremities may be stretched enough to allow the removal of at least two inches of nerve tissue, or the main trunk may be grasped with forceps and avulsed in both directions. The authors have never torn out the spinal accessory in this manner, however, on account of the danger of injury to the structures in the jugular foramen and at the base of the brain.

After division of the nerve the sterno-mastoid becomes at once flaccid; the head can be brought easily into normal position, and, if necessary, kept there. Little is accomplished by fixing the head for some days after dividing the nerve, however, and its discomforts are so great that it is not recommended.—*American Journal of the Medical Sciences*, January, 1895.

II. Methods of Cheiloplasty Applicable to Cases where there is an Extensive Loss of Substance of the Lips. By Dr. P. BERGER (Paris). Among cases of extensive loss of substance of the lips, the nearly total destruction of the lower lip as a result of burns, lupus, or syphilitic ulceration is the most common, and occurs in one of the following forms:

(*a*) The mucosa remains, the skin only is destroyed: in this case the mucosa is turned outward, and its free border is attached more or less low down upon the chin by cicatricial contraction; a true cicatricial exstrophy of the lower lip exists. These conditions are most favorable of any for autoplasty; the Italian method is especially applicable to such cases. The free border of mucosa is divided and dissected up till it is quite free from attachment to fibres of the orbicularis muscle. In the same manner the cicatrices of the chin are made free as far as the subhyoid region. The entire anterior aspect of the chin and lower lip is then covered in by a large flap from the arm, which is left attached to the arm and secured to the chin by sutures until it unites. At the end of from eight to twelve days the pedicle is divided, and the flap is neatly trimmed and approximated to its new position.

(*b*) The mucosa has been partially destroyed at the same time that the skin was, but a part of the free border of the lip remains, and is attached to the cicatrix. In this case use the following technique: find and release whatever remains of the free border of the lip, following the margin carefully, and loosening the mucosa so that the buccal orifice is enclosed by mucosa, even though it be a trifle small. Then release the portion of the scar which is adherent to the jaw, and form a flap whose base is continuous with the alveolar border; loosen this flap with its cicatricial surface towards the buccal cavity in such a manner that it will form the inner surface of the lower lip. The bridge of mucosa, which was first constructed, is now sutured to this new flap so that it forms the free border of the lip. A flap from the arm now is used, as in the first case, to close in the raw surface of the lip; or in some cases, where the space is not large, a sliding flap from the subhyoid region will answer fully as well.

(*c*) It may also happen that all of the parts which make up the lip have been destroyed, there remains neither skin nor muscles nor mucosa nor free border. The entire lip must be reconstructed. In such cases the new skin and mucosa must be obtained from the cheek and carefully joined to the edge where the loss of tissue ceases. A sliding flap one or two finger-breadths wide is made in the cheek, or, if necessary, one from each cheek, which are joined on the median line. The opening in the cheek is closed by suturing the opposite sides together.—*French Congress of Surgery*, Session of 1894.

CHEST AND ABDOMEN.

I. Five Gunshot Wounds of the Intestine and Mesentery; Laparotomy; Sutures; Recovery. By Dr. WILLIAM H. CARMALT (New Haven). The patient was a lad of between twelve and thirteen years of age, who had accidentally shot himself, at about 11 A.M., with a 22-calibre revolver, held in immediate proximity to the abdomen. When seen there was no pain in his abdomen, and the only soreness he would acknowledge was directly at the point of entrance of the bullet, which was about half an inch to the left of and a little above the umbilicus. The wound was about a quarter of an inch in diameter, with discolored edges, and his trousers and shirt (the only garments he wore) had perforations in them corresponding to the situation of the wound.

The wound was explored, and found to go nearly perpendicularly to, but slightly downward and outward and evidently entirely through, the abdominal wall. An incision was carried along the track of the wound, and continued to and then along the median line. No blood appeared in the abdominal cavity, and at first no evidences of injury to the contained organs, but on drawing the intestines out, protecting them at the same time by keeping them wrapped in moist, warm, aseptic towels, and passing them gently and rapidly through the fingers, in search for an injury, a double perforation in the upper part of the small intestine was revealed. These perforations were evidently the points of entrance and exit respectively of the bullet, and were separated by about half an inch of sound tissue. These were sewed up as one wound, using very fine silk, by the Lembert suture. Continuing the search, two other very similar wounds were found in the large intestine, which were treated in the same way, and later a single perforation of the mesentery directly at its junction with the intestine. In all five separate wounds were found. No escape of the contents of the intestine had occurred, and, as mentioned, there was no hæmorrhage; but the bullet and two small pieces of cloth were found. In the latter the patterns of the shirt and trousers were to be recognized. The intestines were then replaced, the abdomen thoroughly flushed out with warm boiled water, and the external wound closed with silkworm-gut sutures.

He had eaten nothing that morning. He had drunk some milk about an hour before the accident, and was waiting for his dinner. This accounted for the empty condition of his stomach and bowels, and the absence of fæcal extravasation through the intestinal wounds.

The recovery from the anæsthetic was followed by nausea, lasting for several days, but there was no complication that could be referred to the abdominal wounds. On the sixth day there was an elevation of temperature reaching to about 102° F. The bowels moved in the course of the first week. Later he had two severe attacks of intestinal colic, owing to indiscretions in diet, but these passed off happily, and five months after the operation he is as well as he ever was, doing all the work and play incident to his surroundings and age.—*Yale Medical Journal*, January, 1895.

II. Thirty-five Cases of Surgery of the Stomach. By Dr. MONTAZ (Grenoble). These cases include six gastrectomies, six gastrotomies, ten gastro-enterostomies, two enterostomies, and eleven exploratory laparotomies.

The six gastrectomies resulted in three cures and three deaths, the last due to collapse following the operation. Of the others, two made a rapid recovery; the other was under treatment for a year. The operations were done for small and movable tumors. The operator rapidly isolates the tumor by tearing away with the fingers the omentum and the gastro-hepatic omentum, places two Richelot clamps faced with rubber at a sufficient distance from the tumor, and cuts away the tumor-mass between them. The divided edges are then sutured after the manner of Doyen.

The six gastrotomies, done for cancer of the cardiac end when complete ablation was impossible, gave six operative cures. In this operation Montaz follows exactly the technique of Terrier, but in spite of the narrowness of the orifice, he has always noticed a discharge of gastric juice and a partial digestion of the wall. He has vainly tried all sorts of remedies to prevent this digestion, the "steresol of Berlioz."

The ten gastro-enterostomies gave seven cures and three operative deaths. All the latter were due to collapse. The anterior operation of Wölfler was always used. Three of the patients who recovered have regurgitation occasionally after eating. The lateral position lessens this trouble, and Montaz believes that the duodeno-jejunostomy of Jaboulay is a useless and serious complication.

Two enterostomies were performed upon patients suffering from extensive involvement of the stomach in cancerous growth, and in whom alimentation had become impossible. The jejunum was identified, and an opening in its walls was made just as in a gastrostomy. Through this the patients were fed, and both of them lived some months.—*French Congress of Surgery*, Session of 1894.

H. P. DE FOREST (Brooklyn).

III. Case of Recovery from Perforating Typhoid Ulcer after Abdominal Section and Drainage. By Dr. ROBERT ABBE (New York). The patient, a woman, twenty-one years of age, at the end of three weeks of typhoid fever, convalescence having begun, developed symptoms of perforation of the bowel. For two days she was treated by poultices and opium, when Dr. Abbe saw her. Her abdomen was then greatly distended; pulse, 140; temperature, 104° F.; lower part of hypogastrium dull. A median incision below the navel exposed distended coils of deeply-congested and greatly-inflamed intestine, smeared with sticky lymph. The pelvis and lower abdomen were filled with a collection of foul, purulent, and fetid intestinal extravasation, feebly confined by matted coils of intestines, loosely glued together, that broke apart on being touched, but which, being recognized, enabled him to introduce clean sponges under the upper abdominal wall. Two pints of foul purulent fluid and thick lymph were cleaned out, and the abdomen irrigated with warm sublimate solution, 1 to 20,000, followed by plain warm-water irrigation.

On the lower part of the ileum were then seen many thick oval patches, in one of which was a gangrenous perforation, a quarter of an inch in diameter, from which intestinal contents were seen to pump out. This was closed by interrupted silk sutures, over which two layers of mattress stitches were placed. A large abdominal tamponnade of iodoform gauze was placed within the abdomen and pelvis, and no attempt made to close the wound. An enema of hot, black coffee and whiskey was given, and the patient put back to bed three-quarters of an hour from the beginning of etherization. At the end of forty-eight hours she was in good condition, except for tympanites. The tampon was changed, and five grains of calomel given. A little fluid fæces leaked from the wound after the calomel action; this continued for two weeks, when it ceased. The abdominal wound closed in rapidly by granulations, forming, finally, a narrow and firm scar. The convalescence was rapid.—*Medical Record,* January 5, 1895.

MALE GENITO-URINARY ORGANS.

I. Double Castration for Relief of Enlarged Prostate. By Dr. Finney (Baltimore). The patient complained of inability to urinate and constant dribbling of urine, dating back two years. He had to resort to the constant use of the catheter. Examination of the prostate showed it to be very much enlarged. The urine contained a trace of albumen, very few casts, slight amount of pus; was acid, and specific gravity 1014. Upon catheterization 420 cubic centimetres of urine were drawn off. The capacity of the bladder was about 1000 cubic centimetres. The bladder was much dilated and atonic. Examination for stone, negative. The patient was put upon the regulation treatment, washing out the bladder, regular catheterization and the usual internal medication. Still he was unable to void his urine, so the operation of castration was performed September 22, 1894. On the sixth day following he urinated unassisted, and since that day, with one or two setbacks, he has done well. He has had occasional attacks of pain in the right side along the ureter and over the kidney, after which there appeared a little pus in the urine, but nothing more definite. Five weeks after operation, the lateral lobes of the prostate were just palpable to the right and left of a silver catheter previously introduced. They were soft, not tender, and showed marked atrophy. There was then not more than fifty cubic centimetres of residual urine; total amount, 1200 to 1500 cubic centimetres. He urinated about seven times in the twenty-four hours. In other respects he was in very good condition.

More recently Dr. Finney has operated upon a second patient where trouble was of five years' duration, with inability to urinate for two years. The prostate was much enlarged; the urine contained pus and albumen in small amount. From frequent and rough using of the catheter a false passage had been made, and, later, catheterization became very difficult and painful. For this reason the operation of castration was advised. He began to urinate without difficulty five days after operation.—*Johns Hopkins Hospital Bulletin*, December, 1894.

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